

5,168,018 ("Yoshizawa") in view of Japanese Patent Laid-Open No. 57-182972 ("JP '972").

Active particles of about -200 mesh size or smaller

Each of independent claims 1, 15, 20, and 28 requires active particles of about -200 mesh size or smaller that are suspended in a fluid medium.

Yoshizawa describes a gel-like anode including the "most effective materials of the corrosion resistant zinc alloys, inorganic inhibitors, and organic inhibitors..." used to produce mercury-free alkaline batteries (Yoshizawa col. 3, lines 22-26). The anode contains a zinc alloy powder (Yoshizawa col. 2, lines 55-58). The Examiner asserts that Yoshizawa fails to disclose the mesh size of the zinc alloy powder (at page 3, line 6 of the Office Action).

To the contrary, Yoshizawa's zinc alloy powder is made by an atomization method to produce zinc alloy particles "**within** the range of **45-150 mesh**" (Yoshizawa col. 6, lines 27-33; emphasis added). Note that a smaller mesh size corresponds to a larger particle size. See, for example, page 9, lines 1-15 of the Specification. Thus, Yoshizawa teaches zinc alloy particles having a **specific range of sizes** (45-150 mesh size) which are significantly **larger** than the zinc alloy particle sizes (-200 mesh size or smaller) recited in claims 1, 15, 20, and 28. Yoshizawa also does not suggest that the particles should have any size other than range of 45-150 mesh. Indeed, Yoshizawa states that "the inventors have studied the composition ... to provide the **optimum effect** and, as a result, they have found the

optimum compositions and combinations" (Yoshizawa col. 4, lines 37-43). Therefore, Applicants submit that one skilled in the art would not have been motivated to alter the particle size of the **optimum compositions** as taught by Yoshizawa.

In making the obviousness rejection, the Examiner contends that JP 972 overcomes the deficiencies of Yoshizawa (at page 3, line 7 through page 4, line 2 of the Office Action). Applicants disagree and submit that there is no suggestion to combine Yoshizawa with JP 972.

JP 972 discloses an improved gelled zinc negative electrode including mercury and a fine zinc powder having a grain size of 25 microns or less (JP 972 page 7, lines 22-24). Yoshizawa, on the other hand, discloses an optimized composition for mercury-free alkaline batteries having particle size in the range of 45-150 mesh size. Thus, one skilled in the art would not have been motivated to replace Yoshizawa's specific particle sizes (used in mercury-free batteries) with JP 972's particle sizes (used in mercury containing batteries).

Moreover, because Yoshizawa discloses that his battery provides excellent characteristics and includes the **optimum compositions and combinations** (Yoshizawa col. 1, lines 11-12 and col. 4, lines 37-43), one skilled in the art would not be motivated to modify his mercury-free battery by combining it with JP 972's mercury battery. Similarly, JP 972 discloses that he provides an improved mercury battery (JP 972 page 1, lines 15-17), so one skilled in the art would not be motivated to modify

his mercury battery by combining it with Yoshizawa's mercury-free battery. The combination of Yoshizawa and JP 972 is improper.

It is well established that a suggestion to combine the references must exist for a claimed invention to be rendered obvious under 35 U.S.C. § 103. For example, in Ex parte Clapp, 227 U.S.P.Q. 972, 973 (Bd. App. 1985), the Board commented:

To support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed combination to have been obvious in light of the teachings of the references.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 as applied to claims 1, 15, 20, and 28.

Less than 55 percent, by weight, active particles

Each of independent claims 15 and 27 requires less than 55 percent, by weight, active particles suspended in a fluid medium.

Yoshizawa describes the gel-like anode as including zinc alloy particles and an electrolyte in a weight ratio of 2:1 (zinc particles to electrolyte) (Yoshizawa col. 7, lines 1-4). Therefore, Yoshizawa does not disclose a fluid medium containing less than 55 percent, by weight, of the active particles. Yoshizawa also does not suggest different weight percentages of the active particles. Moreover, one skilled in the art would not have been motivated to alter Yoshizawa's **optimized** composition to arrive at the electrode mixtures recited in claims 15 and 27.

For at least reasons discussed above, Applicants submit that there is no suggestion to combine Yoshizawa with JP 972. Moreover, even if Yoshizawa were combined with JP 972 (which Applicants submit is improper), JP 972 cannot overcome the deficiencies of Yoshizawa. In fact, JP 972's negative electrode includes 60 parts by weight (coarse zinc powder and fine zinc powder) (JP 972 page 4, lines 4-17). Thus, JP 972 teaches a weight percentage that is **larger** than the weight percentages recited in claims 15 and 27. JP 972 also does not suggest that the weight percentages should be altered --let alone lowered to be less than 55 weight percent.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 as applied to claims 15 and 28.

Conclusion

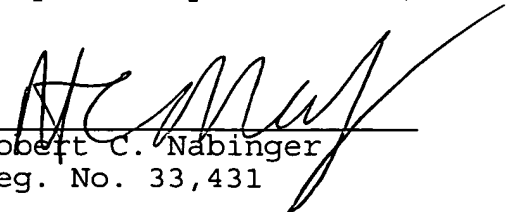
Applicants believe that the application is in condition for allowance, and such action is requested.

Filed herewith is a Petition for Automatic Extension with the required fee.

Please apply any charges not covered, or any credits, to Deposit Account 06-1050.

Respectfully submitted,

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